Having thus described the invention, what is claimed as new and secured by Letters Patent is:

1. In a wireless transmission system equipped with a radio network controller (RNC) hosting radio resource management algorithms for controlling operation of a base transceiver station (BTS), a method of controlling the performance of a radio link established between said base transceiver station and a radio terminal, comprising:

monitoring from said RNC a L-2 parameter directly observable at said RNC;

determining from said L-2 parameter a L-1 parameter, without explicit signaling between said RNC, said BTS and said radio terminal; and

from a radio resource management algorithm, prompting the radio terminal and the RNC to perform a radio resource management action whenever said L-1 parameter violates a L-1 threshold.

2. The method claimed in **Claim 1**, wherein said action comprises one of directly downgrading and upgrading the transmission rate on said radio link.

3. The method claimed in **Claim 1**, wherein said action comprises a radio link reconfiguration.

4. The method claimed in **Claim 1**, wherein said step of monitoring comprises:

establishing a transfer function between said L-1 parameter and said L-2 parameter; and

determining said L-1 parameter using said transfer function and said L-2 parameter.

5. The method claimed in **Claim 4**, wherein said L-1 parameter is the radio block error rate r, and said L-2 parameter is PDU retransmission rate R.

6. The method claimed in **Claim 5**, wherein said step of establishing comprises recording the number of transmitted PDUs and the number of retransmitted PDUs.

7. The method claimed in **Claim 6**, wherein said step of establishing further comprises calculating an actual status prohibit value *t'*.

8. The method claimed in **Claim 7**, wherein said step of establishing further comprises estimating a RLC layer roundtrip delay period *T*, and calculating a maximum number of spurious retransmissions *N(T, t')*.

9. The method claimed in **Claim 8**, wherein said step of establishing further comprises estimating the average time *t_p* to generate a status report if a maximum number of status reports are generated during said delay period *T*.

10. The method claimed in **Claim 9**, wherein said step of establishing further comprises calculating the total number *n* of transmitted PDUs during *t_p* period.

11. The method claimed in **Claim 10**, wherein said step of establishing further comprises estimating the probability *p(r, n)* that a status report will be triggered during the last *t_p* period.

12. The method claimed in **Claim 11**, wherein said step of establishing further comprises calculating an average value *M* of the spurious retransmitted PDUs corresponding to a retransmitted PDU of the PDUs which were received successfully.

13. The method claimed in **Claim 12**, wherein said step of establishing further comprises calculating the PDU retransmission rate *R(N, p, r_o, r)*.

14. The method claimed in **Claim 1**, wherein said step of determining comprises:

obtaining an L-2 threshold for said L-2 parameter based on said transfer function and a configurable L-1 threshold for said L-1 parameter; and

calculating said L-1 parameter from said L-2 parameter based on said transfer function.

15. The method claimed in **Claim 14**, further comprising from said radio resource management algorithm, prompting both said radio terminal and said RNC to perform a radio resource management action whenever said L-2 parameter violates said L-2 threshold.

16. The method claimed in **Claim 14**, wherein said L-1 parameter is the radio block error rate r, and said L-2 parameter is PDU retransmission rate R.

17. The method claimed in **Claim 16**, wherein said transfer function provides the PDU retransmission rate R as a monotonically increasing function of the radio block error rate r according to formula:

$$R = \frac{r + N \cdot p \cdot (1 - r\_o) \cdot (1 - r) \cdot r}{1 + N \cdot p \cdot (1 - r\_o) \cdot (1 - r) \cdot r}$$

where N is the maximum number of spurious retransmission PDUs corresponding to a successfully retransmitted PDU and p is the probability that a status report will be triggered during the last t_p period.

18. The method claimed in **Claim 14**, wherein said L-2 threshold is determined from an L-1 threshold for said L-1 parameter.

19. The method claimed in **Claim 18**, wherein said L-1 threshold is a radio block error rate threshold r_T, and said L-2 threshold is a threshold retransmission rate R_T.

20. The method claimed in **Claim 19** wherein said transfer function provides said R_T as a function of said r_T according to formula:

$$R\_T = \frac{r\_T + N \cdot p \cdot (1 - r\_o) \cdot (1 - r\_T) \cdot r\_T}{1 + N \cdot p \cdot (1 - r\_o) \cdot (1 - r\_T) \cdot r\_T}$$

where N is the maximum number of spurious retransmission PDUs corresponding to a successfully retransmitted PDU and p is the probability that a status report will be triggered during the last t_p period, r_o is the radio block error rate in the opposite direction.

21. A method of obtaining physical layer (L-1) information at radio link control (RLC) layer (L-2) without explicit signaling between L-1 layer and L-2 layer, comprising:

deriving a transfer function between a L-2 observable parameter and an L-1 status parameter;

obtaining said L-2 observable parameter;

applying said transfer function to obtain said L-1 status parameter based on the RLC parameters setting and on an estimation of physical layer information; and

triggering a radio resource management action whenever said L-2 parameter violates a L-2 threshold.

22. The method claimed in **Claim 21**, wherein said L-1 parameter is the radio block error rate r, and said L-2 parameter is PDU retransmission rate R.

23. The method claimed in **Claim 21**, wherein said L-2 threshold is determined from an L-1 threshold for said L-1 parameter.

24. The method claimed in **Claim 22**, wherein said L-1 threshold is a radio block error rate threshold r_T, and said L-2 threshold is a threshold retransmission rate R_T.

25. The method claimed in **Claim 21**, wherein said transfer function provides the PDU retransmission rate R as a monotonically increasing function of the radio block error rate r.